

ABSTRACT

5 A ball bearing fixed assembly in a direct current fan
comprises a fan blade unit, a motor unit, and a fan base.
The fan blade unit has an integral fan blade, a spindle at
the lower central position thereof, a motor casing at an
inner side of the fan blade, and a magnet bar that are attached
to an inner side of the casing. The motor unit has an insulation
10 frame, silicon steel sheets, a circuit board and coils. The
silicon steel sheets horizontally surround the insulation
frame, the circuit board is disposed below the insulation
frame, and the coils are perpendicular to the silicon steel
sheets and mounted within the insulating frame. A ball
15 bearing is installed in a central position within the fan
base and fits with the spindle. An oil chamber is disposed
below the ball bearing with a first receiving room and a
second receiving room. The second receiving room is disposed
above the first receiving room. The spindle has the lower
20 end thereof extending into the first receiving room, which
has filled with lubrication oil. A retaining ring is attached
to the spindle at a position above the first receiving room.
A spring surrounds the axis and is arranged between the
retaining ring and the ball bearing.

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